REMARKS/ARGUMENTS

Claims 1-5 are cancelled without prejudice to filing a divisional application.

Claim 9/8/6 is amended to be independent and is presented as Claim 6 (amended).

Claims 8 and 9 are canceled.

Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hohn et al. (US6,277,301, previously cited, hereinafter Hohn) and in view of Suzuki et al. (JP 2003327961, previously cited, hereinafter, Suzuki.) and Weidman et al. (US 6,583,071, newly cited, hereinafter, Weidman).

The Examiner relies on Hohn for showing the use of a potting composition. Although Hohn does not show the claimed method, Suzuki is relied on to show that the spray process can be done in a vacuum. Applicants disagree with the Examiner's interpretation of the art as rendering the invention as claimed, obvious.

In the case of Hohn's semiconductor component, symbol 5 in Figs. 1-5 represents a potting composition 5 formed of an epoxy casting resin (col.2 line 30-31, col.3 lines 17-18, col.3 line 61, col.8 10-12, col.8 line 66 - col.9 line 1,

and col.9 lines 65-66) and symbol 6 represents luminous substance particles (col.8 line 66 - col.9 line 1). Accordingly, in the Hohn's method there is employed a liquid mixture in which luminous substance particles are mixed with an epoxy casting resin. Hohn's method is therefore identical to the "Comparative example" described on page 13 line 16 - page 14 line 4 of the present specification. This is compared with the present invention as required in claim 6 (see "Example 2" on page 13 lines 6-16, for example). The present invention is thereby shown to provide unexpectedly good results as discussed below.

It is submitted that an epoxy casting resin subjected to a melt casting process as required by Hohn is neither used nor formed in the method of the present invention. In other words, the white light emitting diode produced by the method of Claim 6 of the present invention cannot be prepared by the different method used by Hohn which requires an epoxy resin melt casting method.

Suzuki is relied on, as noted above, to show a spray method as required in Claim 6. However, in the case of Suzuki, the spray pyrolysis is a liquid phase process by which sprayed liquid droplets are introduced into a heating furnace to vaporize the solvent, not in a vacuum but at

atmospheric pressure for chemical reaction, and then particles are nucleated and grown.

Applicants advise that the machine translation of the word "evaporation" in paragraph [0064] of Suzuki (English translation JP 2003327961 done by JPO) is midleading in context. The word "evaporation" (required to be conducted in vacuum) is more usually translated as "vaporization" when generated at atmospheric pressure as described above. So, the spray pyrolysis is one of the liquid phase processes which is not conducted in vacuum, but at atmospheric pressure. In contrast, the present invention process is conducted not at atmospheric pressure but in a vacuum.

In addition, as a matter of course, there is no collision of particles (required in Claim 6) in a vapor phase with the surface of a substrate in vacuum at all in the case of spray pyrolysis which is used in the methods of the cited reference.

Accordingly, it is submitted that the present invention method using aerosol deposition method is clearly distinguished from the spray pyrolysis in the cited reference, both in concept and in effect.

Furthermore, the aerosol deposition method required in Claim 6 of the present invention, results in properties for

which no identical property product can be produced by the spray pyrolysis in comparison to the aerosol deposition method.

Adding Weidman does not change the above distinctions. Weidman teaches a process of spraying a solution toward a substrate with a spray nozzle, wherein the solution comprises a soluble source of silicon oxide, water, a solvent, a surfactant and a catalyst (Claims 1 and 4 of Weidman). In contrast, in the case of the present invention, neither the spray nozzle nor solution in the chamber is used at all. Accordingly, the claimed method is clearly distinguished from the Weidman's process by the aerosol deposition method required in Claim 6 of the present invention, and no identical property product can be produced by the spray pyrolysis in comparison to the aerosol deposition method.

Not only is the present invention method not shown or suggested in the art, but, in the case of the present invention, unexpected results are obtained when using the white light emitting diode comprising a transparent inorganic oxide and the phosphor layer prepared by the aerosol deposition method required in claim 6 of the present invention. This can be seen in Table 1 on page 14 of the present application. In Table 1, "Example 2" indicates an evaluated value (31,100 as

a period of half decay) of a device made by the method of claim 6 of the present invention, and "Comparative example" indicates an evaluated value (5,100 a period of half decay) of the case corresponding to Hahn's sample.

Therefore, it is submitted that the white light emitting diode prepared by the method of the present invention is largely effective to exhibit longer operating life together with high reliability.

Consequently, the effects by utilizing the white light emitting diode comprising the transparent inorganic oxide and the phosphor layer prepared by the aerosol deposition method according to claim 6 of the present invention would not have been obvious over, a combination of Hohn et al. in view of Suzuki and Weidman et al.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hohn and Suzuki and Weidman as applied to claim 6 above, and further in view of Murakami et al. (newly cited, US 2008/0291573, hereinafter, Murakami).

First, the Murakami's film is utilized for a magnetic recording medium and one would not look to that field for help in solving problems of the present invention.

Furthermore, the examiner interpretation of Murakami's film formation rate as being approximately similar to that

of the present invention is incorrect and ignores the units of measurement used.

In the case of Murakami's film, Murakami described a film formation rate of 0.5 nm/sec (30 nm/min) in [0195] of Murakami.

However, in the case of claim 11 of the present invention, the film formation rate is 10 - 30 μm/min (10,000 - 30,000 nm/min).

So, the film formation rate of the present invention is very much larger than the Murakami's film formation rate.

The above-described clearly distinguish Suzuki and Weidman, and further in view of Murakami from claim 11 of the present invention.

In view of the above, the rejections are avoided. Allowance of the application is therefore respectfully requested.

Respectfully submitted,

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